Message

From: Greene, Nikia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=32A08A414A4F40199B557C0819EB7D0B-GREENE, NIKIA]
Sent: 9/24/2015 5:46:39 PM
To: Mark Thompson [mthompson@montanaresources.com]; Hilmo, Tim (RWH Engineering) [Tim.Hilmo@bp.com]
Subject: FW: Peering down the Pit: Assessing Human Metal Accumulations near an Urban Superfund Site.

From: Reed, Daryl [mailto:dreed@mt.gov]
Sent: Thursday, September 24, 2015 11:34 AM
To: Greene, Nikia; Hassler, Eric; Sullivan, Karen
Cc: Stoops, Thomas
Subject: Peering down the Pit: Assessing Human Metal Accumulations near an Urban Superfund Site.

From MSU…

Hello fellow science fans!

This is a friendly reminder regarding our next Café Scientifique taking place at the Baxter Hotel Ballroom in **Bozeman, MT, on Thursday, Oct. 1st at 6:00 p.m**.

The topic: Potential health consequences of open-pit mining in Butte, MT.

EVENT DETAILS:

The speaker is **Dr. Katie Hailer**, whose talk is entitled, “"Peering down the Pit: Assessing Human Metal Accumulations near an Urban Superfund Site.”

- Event starts at 6pm at the Baxter Hotel on Main St. in downtown Bozeman
- The event is **FREE** and open to the public
- No RSVP required
- You are welcome to forward this message and attachment to family, friends and colleagues
- Complementary refreshments provided
- Once again, rumors exist that there might be chocolate cake with white frosting, but we can neither confirm nor deny … you'll just have to show up to find out

PRESENTATION DETAILS:

Butte is home to approximately 35,000 residents living adjacent to one of the largest concentrated areas of environmental contamination in the United States. While the decommissioned Berkeley Pit copper mine has garnered national attention as a Superfund site, fewer people are as aware that other open-pit mines continue to operate in close proximity to Butte’s urban population, according to Dr. Katie Hailer. To date, most scientific research has focused on assessing water and soil contamination related to past decades of mining. Hailer’s talk will instead focus on current mining operations’ ongoing effects on air pollution and soil contamination and the potential health consequences for local residents.

Hailer’s presentation will cover her research methodology and her preliminary data, including finding statistically higher levels of copper, manganese and molybdenum in Butte residents compared to a control group

in Bozeman. She will also discuss follow-up research conducted in 2014 and 2015, which revealed elevated levels of copper, manganese, lead, selenium and zinc in Butte residents.

Although preliminary, Hailer's findings are significant because the National Institute of Neurological Disorders and Stroke, a component of the National Institutes of Health, lists metal exposure as an environmental risk factor linked to neurodegenerative disorders like dementia. The role of metals in neurodegeneration is a rapidly expanding field of scientific research involving contributions from molecular genetics, biochemistry, and biometal imaging. Hailer hopes to conduct further research into how chronic exposure to metal mixtures might play a role in activating dormant genetic medical conditions.

Hailer is an associate professor of biochemistry at Montana Tech of the University of Montana. She received a bachelor's degree in chemistry from West Virginia University and a doctorate in chemistry from the University of Montana. She completed a postdoctoral fellowship at the Mayo Clinic in Rochester, Minn., before teaching at Winona State University from 2007-2009. Hailer joined Montana Tech's chemistry department in 2010.